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Erratum: Novel bio-inspired soft actuators for upper-limb exoskeletons: design, fabrication and feasibility study

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KEYWORDS

index terms-pneumatic soft actuators, bio-inspired design, analytical modeling, wearable devices, exoskeleton

An erratum on
[Novel bio-inspired soft actuators for upper-limb exoskeletons: design, fabrication and feasibility study](#)

by Zhang H, Naquila G, Bae J, Wu Z, Hingwe A and Deshpande A (2024). *Front. Robot. AI* 11:1451231. doi: [10.3389/frobt.2024.1451231](#)

Due to a production error, there was a mistake in [Figures 3–9](#) as published. The images were inserted in the incorrect order and did not match the respective captions. The corrected [Figures 3–9](#) appear below.

The publisher apologizes for this mistake. The original version of this article has been updated.

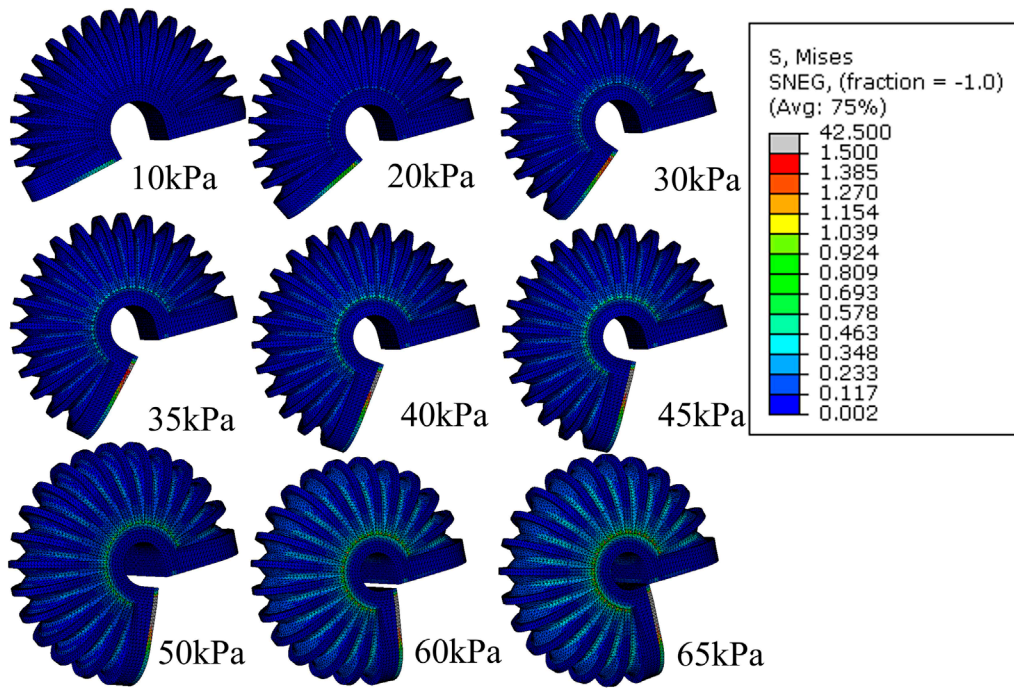


FIGURE 3 FEM simulation of the stress distribution of LISPER with a pressure range from 10 kPa to 65 kPa. Note: The c-shaped brace is hidden on the image for clear demonstration.

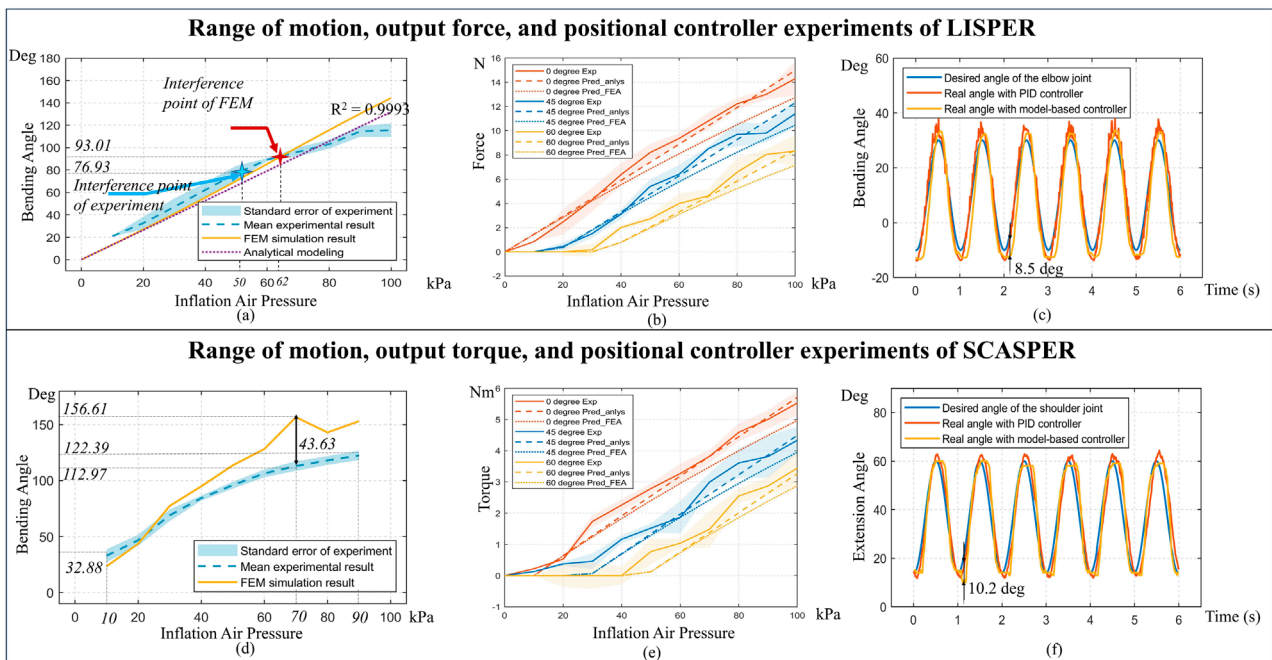
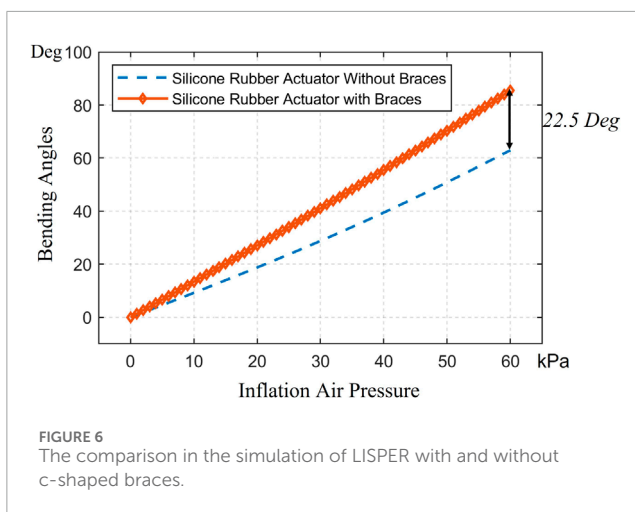
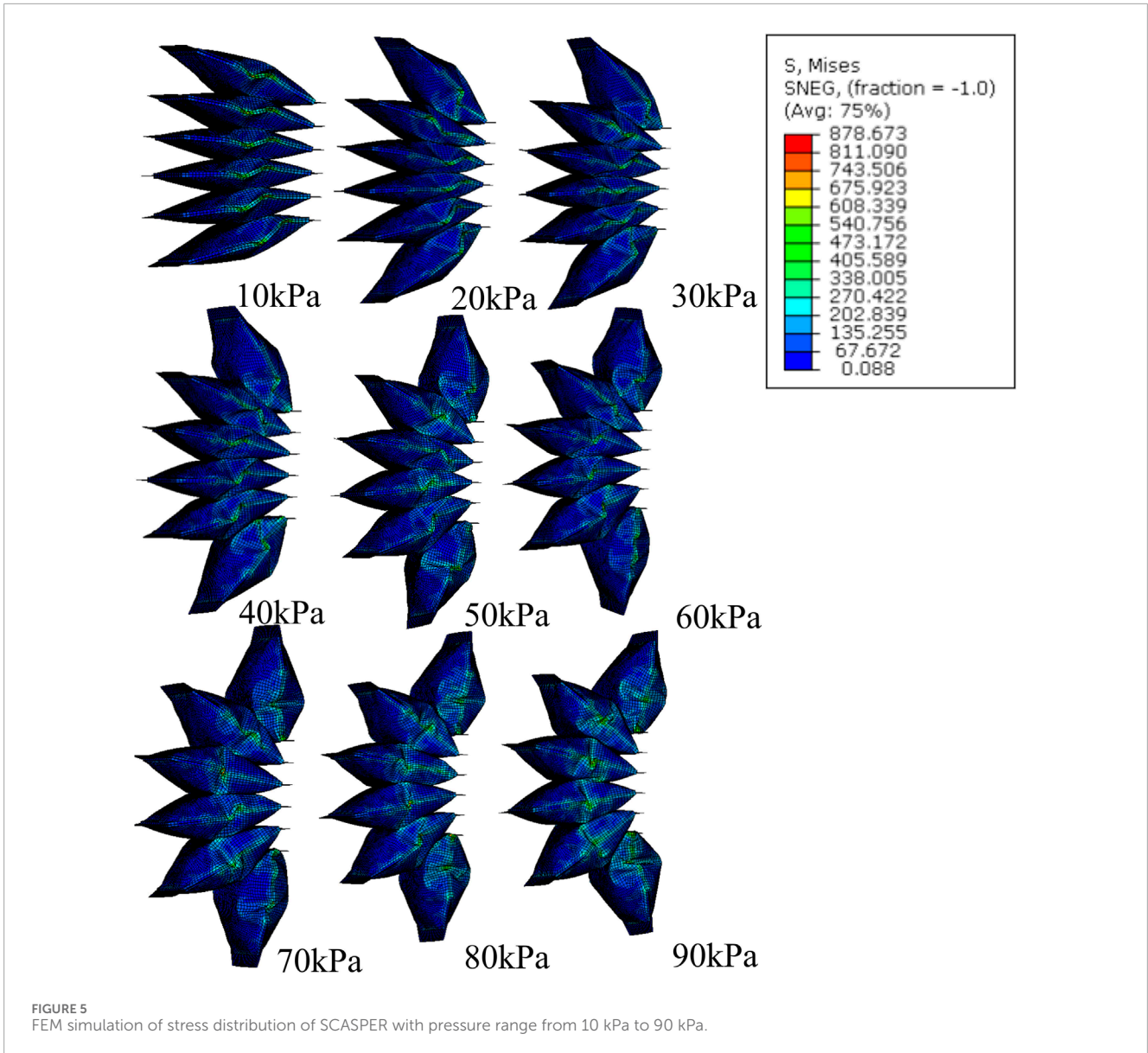
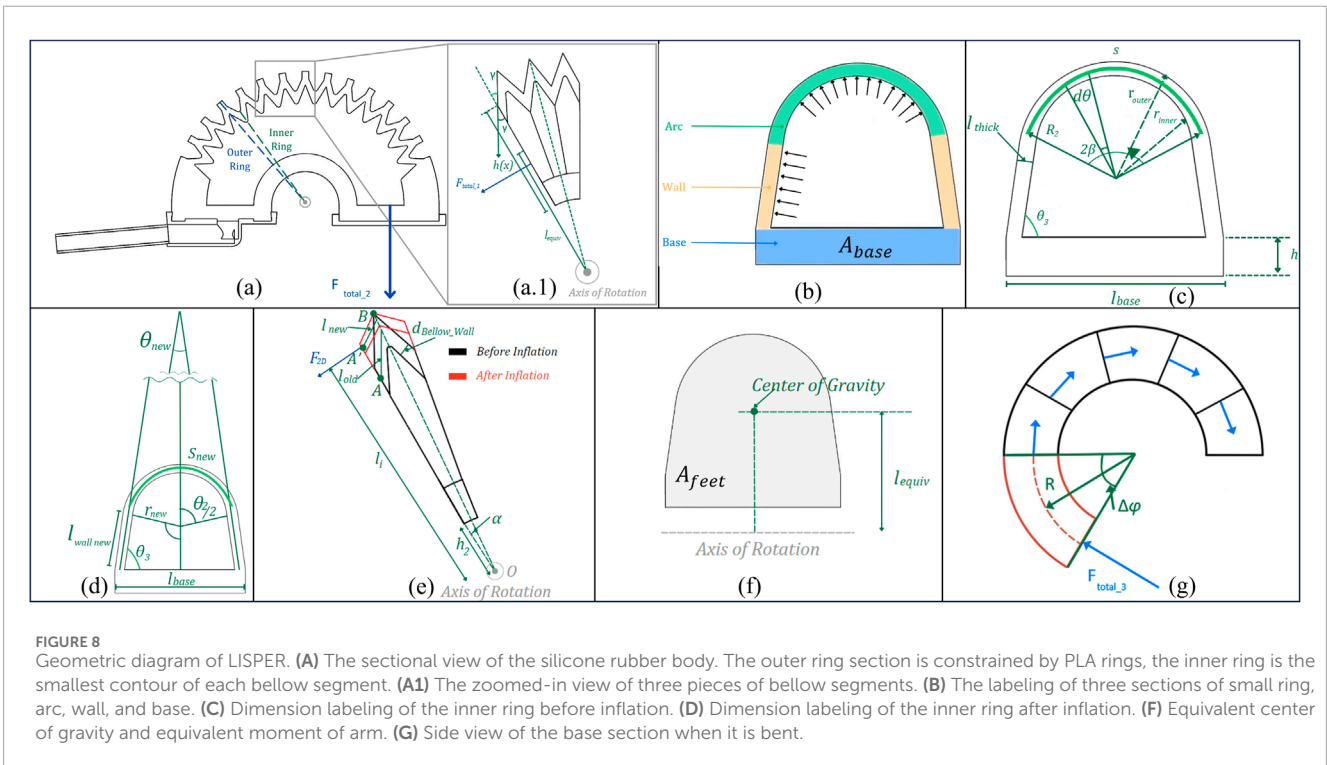
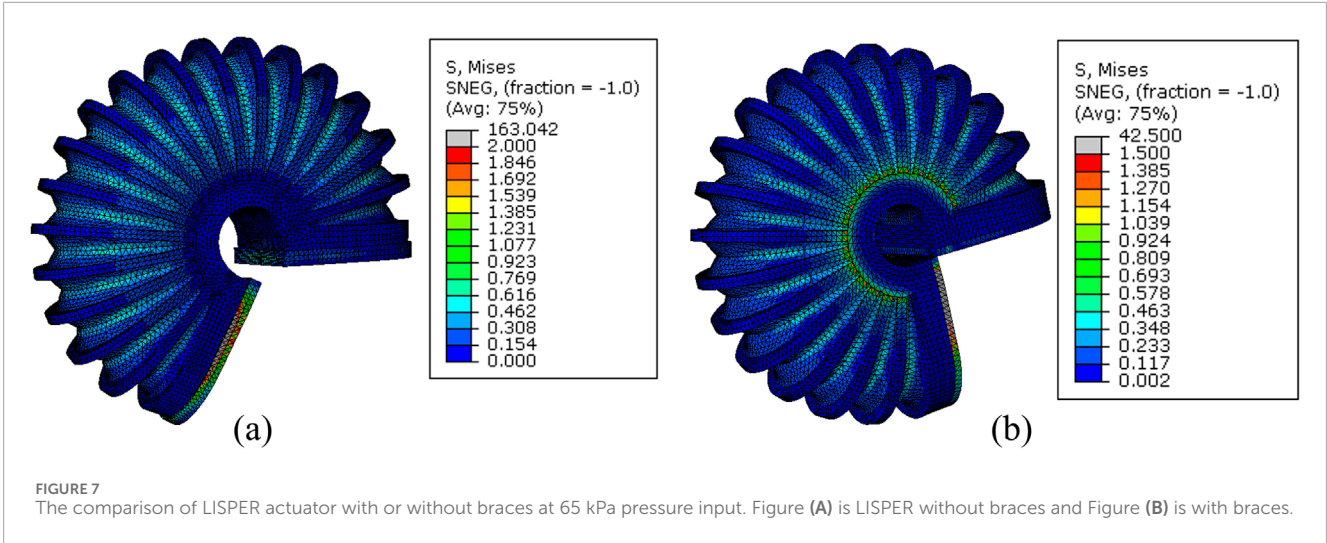


FIGURE 4 (A, D) Comparison between modelings and experimental bending angle for LISPER and SCASPER, respectively. (B, E) Comparison between analytical model-based prediction, FEA, and experiment on Pressure vs. Force and Pressure vs. Torque of LISPER and SCASPER under different fixed angles. (C, F) Comparison between the PID model-free controller and the model-based position controller applied to the elbow and shoulder, respectively.





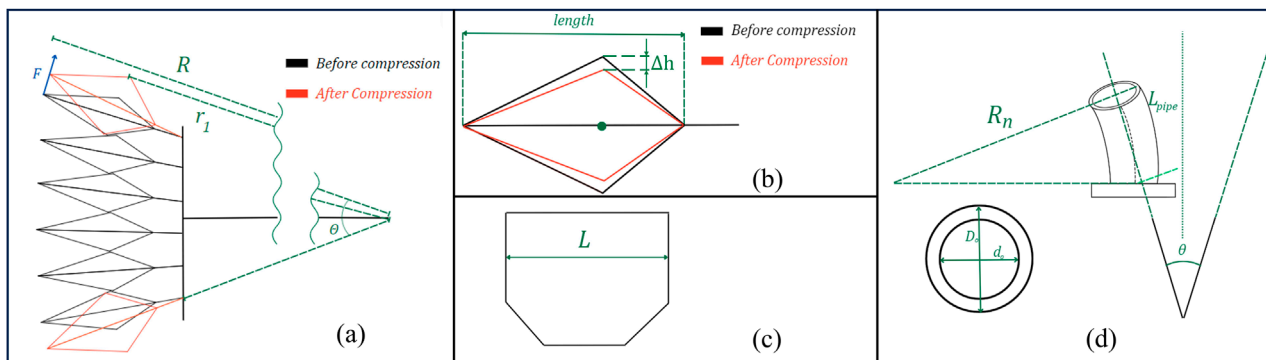


FIGURE 9 Geometric diagram of SCASPER. **(A)** The geometric labeling of SCASPER before and after compressed. F is the force output r_1 is the moment of the arm from the contact point between the airbags to the center of rotation. **(B)** The sectional view of one airbag before and after compression from the environment. **(C)** The width of each airbag from the top view. **(D)** The geometric labeling of the PU pipe when they are bent.